

WHAT IS CLAIMED IS:

1 1. A method comprising:

2 collecting information in a network device;

3 determining in the network device when to transmit a

4 subset of the collected information to a collection system;

5 and

6 determining in the network device the subset of the

7 collected information to be transmitted at a given time.

1 2.The method of claim 1 in which the collected information

2 comprises values stored in counters.

1 3.The method of claim 1 in which the subset represents a value

2 of a counter.

1 4.The method of claim 1 in which the subset represents values

2 of multiple counters.

1 5.The method of claim 1 in which determining when to send is

2 user-configurable.

1 6.The method of claim 1 in which determining when to send

2 comprises:

3 determining a low peak period of a network operation; and

4 sending the subset during the low peak period.

1 7.The method of claim 1 further comprising tagging the value
2 of the collected information with an identifier.

1 8.The method of claim 7 further comprising using a locally
2 significant tag value as the identifier.

1 9.The method of claim 8 wherein the locally significant tag
2 value is an array index.

1 10.The method of claim 9 further comprising associating the
2 locally significant value of the tag with the globally
3 significant value of the identifier and announcing the
4 association through a communications channel of a computer
5 network system.

1 11.The method of claim 10 in which a communication channel
2 used to announce tag and identifier associations is the
3 channel used to transmit collected information.

1 12.The method of claim 1 in which the collected information
2 that is unchanged is not transmitted from the network device
3 to the collection system.

1 13.The method of claim 1 further comprising sending
2 acknowledgements from the collection system to the network
3 device when the collection system receives the collected
4 information.

1 14.The method of claim 1 in which the collected information is
2 reported periodically.

1 15.The method of claim 1 further comprising establishing a
2 signaling phase between the network device and the collection
3 system prior to sending the collected information.

1 16.The method of claim 15 in which the signaling phase
2 includes exchanging information relating to transfer and
3 authentication of the collected information sent between the
4 network device and the collection system through a
5 communications channel.

1 17.The method of claim 16 in which the communications channel
2 comprises a secure connection.

1 18.The method of claim 1 in which the collected information
2 comprises event logging records.

1 19.A system comprising:

2 a collection system coupled to a network device through a
3 communications channel of a computer network system;

4 a network device collecting information and configured to
5 determine when to send a subset of the collected information
6 to a collection system; and

7 determine in the network device a subset of the collected
8 information to be transmitted at a given time.

1 20.The system of claim 19 in which the collected information
2 comprises values stored in counters.

1 21.The system of claim 20 in which the subset is a value of a
2 counter.

1 22.The system of claim 20 in which the subset is a value of
2 multiple counters.

1 23.The system of claim 19 in which the network device is
2 configured to determine when to send a subset of the collected
3 information.

1 24.The system of claim 19 in which the network device being
2 configured to determine when to send includes the network
3 device being configured to:

4 determine a low peak period of a network operation; and
5 send the subset during the low peak period.

1 25.The system of claim 19 in which the value of the collected
2 information is transmitted with an identifier.